

CLAIMS

What is claimed is:

1. A portable water heater providing a continuous flow of hot water by heating the water as it flows through the portable water heater to the user for immediate use, the portable water heater comprising:

a housing having a plurality of walls;

a fuel burner configured to produce heat into the housing as fuel is burned; and

a heat transfer conduit fluidly connected to a water source, the heat transfer conduit being in thermal communication with the fuel burner and configured to transfer the heat produced by the fuel burner to the water flowing through the heat transfer conduit and to output heated water outside of the housing.

2. The portable water heater of claim 1, wherein the heat transfer conduit comprises at least one coiled tube.

3. The portable water heater of claim 2, wherein at least a portion of the coiled tubing forms a cylindrical shaped member.

4. The portable heater of claim 3, wherein the coiled tubing is disposed about a horizontal axis in the housing.

5. The portable water heater of claim 1, wherein the fuel burner is situated in relation to the heat transfer conduit so as to evenly distribute heat along the length of the heat transfer conduit.

6. The portable water heater of claim 1, wherein the housing further comprises a plurality of plates, the plurality of plates being disposed about the heat transfer conduit and fuel burner and spaced apart from at least some of the plurality of walls of the housing.

7. The portable water heater of claim 1, wherein one or more support rods are disposed horizontally between two spaced apart vertical plates, wherein the heat transfer conduit is supported by the one or more support rods.

8. The portable water heater of claim 1, wherein the heat transfer conduit is fluidly connected to an intake conduit.

9. The portable water heater of claim 1, wherein the intake conduit is connected to a pump being sized and configured to pump water through said heat transfer conduit with sufficient force to output heated water outside of the housing.

10. The portable water heater of claim 1, wherein the heat transfer conduit is fluidly connected to an outlet conduit, the outlet conduit terminating in a spray head for producing a spray of water.

11. The portable water heater of claim 1, wherein one of the plurality of walls of the housing comprises an upper surface that is substantially planar, the upper surface providing a surface for heating items while the portable water heater is in use.

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12. A portable water heater for providing a continuous flow of hot water by heating the water as it flows to the user for immediate use, the portable water heater comprising:

a housing having a plurality of walls;

a heat transfer conduit fluidly connected to a water source and configured to output heated water outside of the housing, the heat transfer conduit configured into a coiled tube; and

a fuel burner placed in thermal communication with the heat transfer conduit and placed outside of the coiled tube.

13. The portable heater of claim 12, wherein the coiled tubing is disposed about a horizontal axis in the housing.

14. The portable water heater of claim 12, wherein the fuel burner is situated in relation to the heat transfer conduit so as to evenly distribute heat along the length of the heat transfer conduit.

15. The portable water heater of claim 12, wherein the housing further comprises a plurality of plates, the plurality of plates being disposed about the heat transfer conduit and fuel burner and spaced apart from at least some of the plurality of walls of the housing.

16. The portable water heater of claim 15, wherein one or more support rods are disposed horizontally between two spaced apart vertical plates, wherein the heat transfer conduit is supported by the one or more support rods.

17. The portable water heater of claim 12, wherein the heat transfer conduit is fluidly connected to an intake conduit.

18. The portable water heater of claim 17, wherein the intake conduit is connected to a pump being sized and configured to pump water through said heat transfer conduit with sufficient force to output heated water outside of the housing.

19. The portable water heater of claim 12, wherein the heat transfer conduit is fluidly connected to an outlet conduit, the outlet conduit terminating in a spray head for producing a spray of water.

20. The portable water heater of claim 12, wherein one of the plurality of walls of the housing comprises an upper surface that is substantially planar, the upper surface providing a surface for heating items while the portable water heater is in use.

21. A portable water heater for use in emergency situations, the portable water heater providing a continuous flow of hot water by heating the water as it flows through the portable water heater to the user for immediate use, the portable water heater comprising:

a housing having a plurality of walls;

a fuel burner configured to produce heat into the housing as fuel is burned; and

a heat transfer conduit fluidly connected to a water source, the heat transfer conduit being in thermal communication with the fuel burner and configured to transfer the heat produced by the fuel burner to the water flowing through the heat transfer conduit and to output heated water outside of the housing.

22. The portable water heater of claim 11, wherein the heat transfer conduit comprises at least one coiled tube.

23. The portable water heater of claim 22, wherein at least a portion of the coiled tubing forms a cylindrical shaped member.

24. The portable heater of claim 23, wherein the coiled tubing is disposed about a horizontal axis in the housing.

25. The portable water heater of claim 21, wherein the fuel burner is situated in relation to the heat transfer conduit so as to evenly distribute heat along the length of the heat transfer conduit.

26. The portable water heater of claim 21, wherein the housing further comprises a plurality of plates, the plurality of plates being disposed about the heat transfer conduit and fuel burner and spaced apart from at least some of the plurality of walls of the housing.

27. The portable water heater of claim 21, wherein one or more support rods are disposed horizontally between two spaced apart vertical plates, wherein the heat transfer conduit is supported by the one or more support rods.

28. The portable water heater of claim 21, wherein the heat transfer conduit is fluidly connected to an intake conduit.

29. The portable water heater of claim 21, wherein the intake conduit is connected to a pump being sized and configured to pump water through said heat transfer conduit with sufficient force to output heated water outside of the housing.

30. The portable water heater of claim 21, wherein the heat transfer conduit is fluidly connected to an outlet conduit, the outlet conduit terminating in a spray head for producing a spray of water.

31. The portable water heater of claim 21, wherein one of the plurality of walls of the housing comprises an upper surface that is substantially planar, the upper surface providing a surface for heating items while the portable water heater is in use.

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32. A portable water heater for use in emergency situations, the portable water heater providing a continuous flow of hot water by heating the water as it flows to the user for immediate use, the portable water heater comprising:

a housing having a plurality of walls;

a heat transfer conduit fluidly connected to a water source and configured to output heated water outside of the housing, the heat transfer conduit configured into a coiled tube; and

a fuel burner placed in thermal communication with the heat transfer conduit and placed outside of the coiled tube.

33. The portable heater of claim 32, wherein the coiled tubing is disposed about a horizontal axis in the housing.

34. The portable water heater of claim 32, wherein the fuel burner is situated in relation to the heat transfer conduit so as to evenly distribute heat along the length of the heat transfer conduit.

35. The portable water heater of claim 32, wherein the housing further comprises a plurality of plates, the plurality of plates being disposed about the heat transfer conduit and fuel burner and spaced apart from the plurality of walls of the housing.

36. The portable water heater of claim 35, wherein one or more support rods are disposed horizontally between two spaced apart vertical plates, wherein the heat transfer conduit is supported by the one or more support rods.

37. The portable water heater of claim 32, wherein the heat transfer conduit is fluidly connected to an intake conduit.

38. The portable water heater of claim 37, wherein the intake conduit is connected to a pump being sized and configured to pump water through said heat transfer conduit with sufficient force to output heated water outside of the housing.

39. The portable water heater of claim 32, wherein the heat transfer conduit is fluidly connected to an outlet conduit, the outlet conduit terminating in a spray head for producing a spray of water.

40. The portable water heater of claim 32, wherein one of the plurality of walls of the housing comprises an upper surface that is substantially planar, the upper surface providing a surface for heating items while the portable water heater is in use.